

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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For : 5- OR 6-SUBSTITUTED BENZIMIDAZOLE DERIVATIVES
AS INHIBITORS OF RESPIRATORY SYNCYTIAL VIRUS
REPLICATION

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PRELIMINARY AMENDMENT "A"

Dear Sir:

Prior to examination and calculation of fees due, please amend the above-identified application as follows.

- ☒ Amendments to the Specification begin on page 2 of this paper.
- ☒ Amendments to the Claims are reflected in the listing of the claims which begins on page 3 of this paper.
- ☐ Amendments to the Drawings begin on page of this paper and include an attached replacement sheet.
- ☒ Remarks begin on page 18 of this paper.

AMENDMENTS TO SPECIFICATION

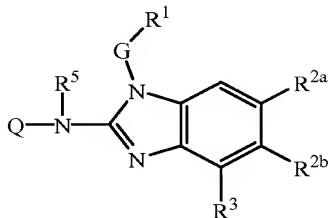
Page 1, between the Title and line 4, please insert the following new paragraph:

--Cross Reference to Related Applications

This application is the national stage of PCT Application No. PCT/EP2004/053618, filed December 20, 2004, which application claims priority from European Patent Application No. 03104806.9, filed 18 December 2003 and US provisional Application No. 60/566867, filed 30 April 2004, the entire disclosures of which are hereby incorporated in their entirety.--

Listing Claims

1. (Original) A compound having the formula

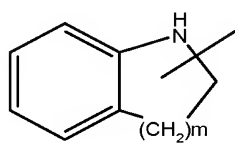


a prodrug, *N*-oxide, addition salt, quaternary amine, metal complex or stereochemically isomeric form thereof wherein

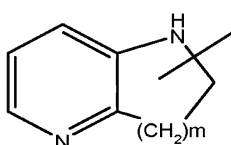
Q is Ar², R^{6a}, pyrrolidinyl substituted with R⁶, piperidinyl substituted with R⁶ or homopiperidinyl substituted with R⁶;

G is a direct bond or C₁₋₁₀alkanediyl optionally substituted with one or more substituents individually selected from the group consisting of hydroxy, C₁₋₆alkyloxy, Ar¹C₁₋₆alkyloxy, C₁₋₆alkylthio, Ar¹C₁₋₆alkylthio, HO(-CH₂-CH₂-O)_n-, C₁₋₆alkyloxy(-CH₂-CH₂-O)_n- and Ar¹C₁₋₆alkyloxy(-CH₂-CH₂-O)_n-;

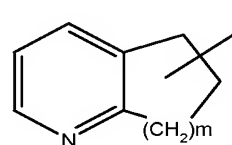
R¹ is Ar¹ or a monocyclic or bicyclic heterocycle being selected from piperidinyl, piperazinyl, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, tetrahydrofuranyl, thienyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, isothiazolyl, pyrazolyl, isoxazolyl, oxadiazolyl, quinolinyl, quinoxalinyl, benzofuranyl, benzothienyl, benzimidazolyl, benzoxazolyl, benzthiazolyl, pyridopyridyl, naphthiridinyl, 1*H*-imidazo[4,5-*b*]pyridinyl, 3*H*-imidazo[4,5-*b*]pyridinyl, imidazo[1,2-*a*]pyridinyl, 2,3-dihydro-1,4-dioxino[2,3-*b*]pyridyl or a radical of formula



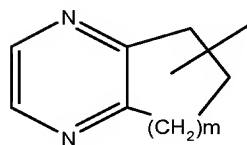
(c-1)



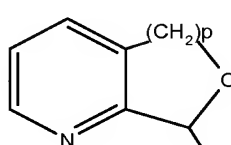
(c-2)



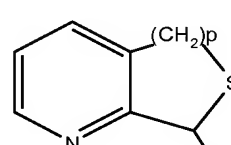
(c-3)



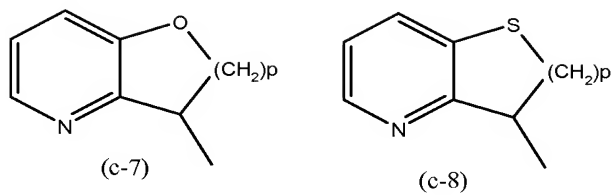
(c-4)



(c-5)



(c-6)



wherein each of said monocyclic or bicyclic heterocycles may optionally be substituted with 1 or where possible more, such as 2, 3, 4 or 5, substituents individually selected from the group of substituents consisting of halo, hydroxy, amino, cyano, carboxyl, C₁₋₆alkyl, C₁₋₆alkyloxy, C₁₋₆alkylthio, C₁₋₆alkyloxyC₁₋₆alkyl, Ar¹, Ar¹C₁₋₆alkyl, Ar¹C₁₋₆alkyloxy, hydroxyC₁₋₆alkyl, mono-or di(C₁₋₆alkyl)amino, mono-or di(C₁₋₆alkyl)aminoC₁₋₆alkyl, polyhaloC₁₋₆alkyl, C₁₋₆alkylcarbonylamino, C₁₋₆alkyl-SO₂-NR^{4a}-, Ar¹-SO₂-NR^{4a}-, C₁₋₆alkyloxycarbonyl, -C(=O)-NR^{4a}R^{4b}, HO(-CH₂-CH₂-O)_n-, halo(-CH₂-CH₂-O)_n-, C₁₋₆alkyloxy(-CH₂-CH₂-O)_n-, Ar¹C₁₋₆alkyloxy(-CH₂-CH₂-O)_n- and mono-and di(C₁₋₆alkyl)amino(-CH₂-CH₂-O)_n-;

one of R^{2a} and R^{2b} is cyanoC₁₋₆alkyl, cyanoC₂₋₆alkenyl, Ar³C₁₋₆alkyl, (Ar³)(OH)C₁₋₆alkyl, Het-C₁₋₆alkyl, N(R^{8a}R^{8b})C₁₋₆alkyl, Ar³C₂₋₆alkenyl, Het-C₂₋₆alkenyl, Ar³aminoC₁₋₆alkyl, Het-aminoC₁₋₆alkyl, Het-C₁₋₆alkylamino-C₁₋₆alkyl, Ar³thioC₁₋₆alkyl, Het-thioC₁₋₆alkyl, Ar³sulfonylC₁₋₆alkyl, Het-sulfonyl-C₁₋₆alkyl, Ar³aminocarbonyl, Het-aminocarbonyl, Ar³(CH₂)_naminocarbonyl, Het-(CH₂)_naminocarbonyl, Ar³carbonylamino, Het-carbonylamino, Ar³(CH₂)_ncarbonylamino, Het-(CH₂)_ncarbonylamino, Ar³(CH₂)_namino; and the other one of R^{2a} and R^{2b} is hydrogen;

in case R^{2a} is hydrogen, then R³ is hydrogen;

in case R^{2b} is hydrogen, then R³ is hydrogen or C₁₋₆alkyl;

R^{4a} and R^{4b} can be the same or can be different relative to one another, and are each independently hydrogen or C₁₋₆alkyl; or

R^{4a} and R^{4b} taken together may form a bivalent radical of formula -(CH₂)_s- wherein s is 4 or 5;

R⁵ is hydrogen or C₁₋₆alkyl;

R⁶ is hydrogen or C₁₋₆alkyl optionally substituted with one or more substituents each independently selected from the group consisting of trifluoromethyl, NR^{7a}R^{7b}, C₃₋₇cycloalkyl, Ar², hydroxy, C₁₋₄alkoxy, C₁₋₄alkylthio, Ar²-oxy-, Ar²-thio-, Ar²(CH₂)_noxy, Ar²(CH₂)_nthio, hydroxycarbonyl, aminocarbonyl, C₁₋₄alkyl-carbonyl, Ar²carbonyl, C₁₋₄alkoxycarbonyl, Ar²(CH₂)_ncarbonyl, amino-carbonyloxy, C₁₋₄alkylcarbonyloxy, Ar²carbonyloxy, Ar²(CH₂)_ncarbonyloxy, C₁₋₄alkoxycarbonyl(CH₂)_noxy, mono- or di(C₁₋₄alkyl)aminocarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyloxy, aminosulfonyl, mono- or di(C₁₋₄alkyl)amino-sulfonyl or a heterocycle selected from the group consisting of pyrrolidinyl,

pyrrolyl, dihydropyrrolyl, imidazolyl, triazolyl, piperidinyl, homopiperidinyl, piperazinyl, pyridyl and tetrahydropyridyl, wherein each of said heterocycle may optionally be substituted with oxo or C₁₋₆alkyl;

R^{6a} is C₁₋₆alkyl substituted with one or more substituents each independently selected from the group consisting of trifluoromethyl, NR^{7a}R^{7b}, C₃₋₇cycloalkyl, Ar², hydroxy, C₁₋₄alkoxy, C₁₋₄alkylthio, Ar²-oxy-, Ar²-thio-, Ar²(CH₂)_noxy, Ar²(CH₂)_nthio, hydroxycarbonyl, aminocarbonyl, C₁₋₄alkylcarbonyl, Ar²carbonyl, C₁₋₄alkoxycarbonyl, Ar²(CH₂)_ncarbonyl, aminocarbonyloxy, C₁₋₄alkylcarbonyloxy, Ar²carbonyloxy, Ar²(CH₂)_ncarbonyloxy, C₁₋₄alkoxycarbonyl(CH₂)_noxy, mono- or di(C₁₋₄alkyl)aminocarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyloxy, aminosulfonyl, mono- or di(C₁₋₄alkyl)aminosulfonyl or a heterocycle selected from the group consisting of pyrrolidinyl, pyrrolyl, dihydropyrrolyl, imidazolyl, triazolyl, piperidinyl, homopiperidinyl, piperazinyl, pyridyl and tetrahydropyridyl, wherein each of said heterocycle may optionally be substituted with oxo or C₁₋₆alkyl;

R^{7a} is hydrogen, C₁₋₆alkyl, formyl or C₁₋₆alkylcarbonyl;

R^{7b} is hydrogen, C₁₋₆alkyl, formyl or C₁₋₆alkylcarbonyl;

R^{8a} is Ar³, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, C₁₋₆alkoxyC₁₋₆alkyl, cyanoC₁₋₆alkyl, aminoC₁₋₆alkyl, mono- or di(C₁₋₆alkyl)aminoC₁₋₆alkyl, Ar³C₁₋₆alkyl, Het-C₁₋₆alkyl, aminocarbonyl-C₁₋₆-alkyl, carboxyl-C₁₋₆-alkyl;

R^{8b} is Ar³, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, C₁₋₆alkoxyC₁₋₆alkyl, cyanoC₁₋₆alkyl, aminoC₁₋₆alkyl, mono- or di(C₁₋₆alkyl)aminoC₁₋₆alkyl, Ar³C₁₋₆alkyl, Het-C₁₋₆alkyl;

each n independently is 1, 2, 3 or 4;

each m independently is 1 or 2;

each p independently is 1 or 2;

Ar¹ is phenyl or phenyl substituted with 1 or more, such as 2, 3 or 4, substituents selected from halo, hydroxy, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, polyhaloC₁₋₆alkyl, and C₁₋₆alkyloxy;

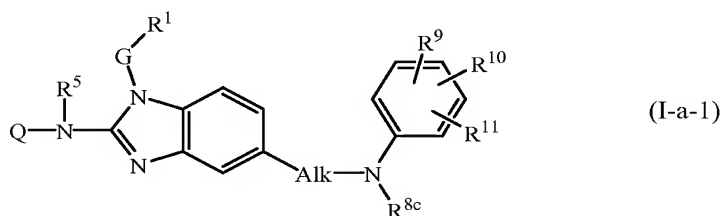
Ar² is phenyl or phenyl substituted with 1 or more, such as 2, 3 or 4, substituents selected from the group consisting of halo, hydroxy, amino, cyano, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, polyhaloC₁₋₆alkyl, aminoC₁₋₆alkyl, C₁₋₆alkyloxy, aminosulfonyl, aminocarbonyl, hydroxycarbonyl, C₁₋₄alkylcarbonyl, mono- or di(C₁₋₄alkyl)amino, mono- or di(C₁₋₄alkyl)aminocarbonyl, mono- or di(C₁₋₄alkyl)aminosulfonyl, mono- or di(C₁₋₄alkyl)aminoC₁₋₆alkyl and C₁₋₄alkoxycarbonyl;

Ar³ is phenyl, naphthalenyl, 1,2,3,4-tetrahydro-naphthalenyl or indanyl, wherein said phenyl, naphthyl, 1,2,3,4-tetrahydro-naphthalenyl or indanyl may optionally and each individually be substituted with one or more, such as 2, 3 or 4, substituents

selected from the group consisting of halo, hydroxy, mercapto, amino, cyano, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, Ar¹, hydroxyC₁₋₆alkyl, polyhaloC₁₋₆alkyl, aminoC₁₋₆alkyl, cyanoC₁₋₆alkyl, aminocarbonyl, C₁₋₆alkyloxy, C₁₋₆alkylthio, Ar¹-oxy, Ar¹-thio, Ar¹-amino, aminosulfonyl, aminocarbonyl-C₁₋₆alkyl, hydroxycarbonyl-C₁₋₆alkyl, hydroxycarbonyl, C₁₋₄alkylcarbonyl, mono- or di(C₁₋₄alkyl)amino, mono- or di(C₁₋₄alkyl)aminocarbonyl, mono- or di(C₁₋₄alkyl)aminosulfonyl, mono- or di(C₁₋₄alkyl)aminoC₁₋₆alkyl, C₁₋₄alkylcarbonylamino and C₁₋₄alkoxycarbonyl;

Het is a heterocycle being selected from tetrahydrofuranyl, tetrahydrothienyl, dioxanyl, dioxolanyl, pyrrolidinyl, pyrrolidinonyl, furanyl, thienyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, isothiazolyl, pyrazolyl, isoxazolyl, oxadiazolyl, thiadiazolyl, piperidinyl, homopiperidinyl, piperazinyl, morpholinyl, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, tetrahydroquinolinyl, quinolinyl, isoquinolinyl, benzodioxanyl, benzodioxolyl, indolinyl, indolyl, each of said heterocycle may optionally be substituted with oxo, amino, Ar¹, C₁₋₄alkyl, aminoC₁₋₄alkyl, hydroxyC₁₋₆alkyl, Ar¹C₁₋₄alkyl, mono- or di(C₁₋₆alkyl)aminoC₁₋₆alkyl, mono- or di(C₁₋₆alkyl)amino, or with two C₁₋₄alkyl radicals.

2. (Original) A compound according to claim 1 wherein the compound has the formula (I-a-1):



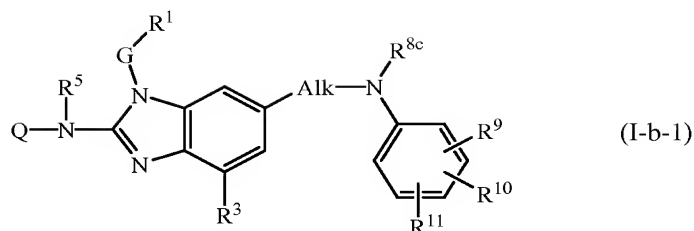
wherein Q, R⁵, G and R¹ are as claimed in claim 1; and

Alk is C₁₋₆alkanediyl;

R^{8c} has the same meanings of R^{8a}, as claimed in claim 1, and also may be hydrogen;

R⁹, R¹⁰, R¹¹ independently from one another have the same meanings as the substituents on Ar³ as claimed in claim 1.

3. (Original) A compound according to claim 1 wherein the compound has the formula (I-b-1):



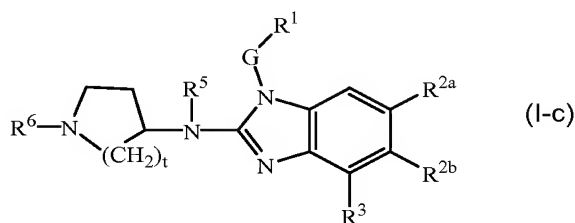
wherein Q, R⁵, G and R¹ are as claimed in claim 1; and

Alk is C₁₋₆alkanediyl;

R^{8c} has the same meanings of R^{8a}, as claimed in claim 1, and also may be hydrogen;

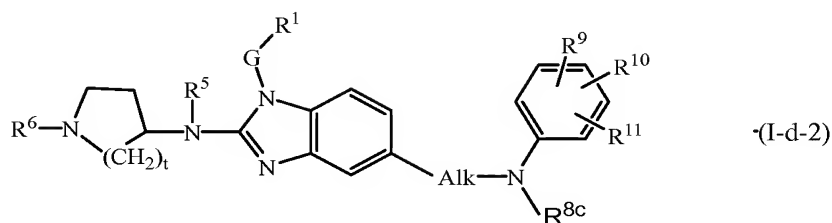
R⁹, R¹⁰, R¹¹ independently from one another have the same meanings as the substituents on Ar³ as claimed in claim 1.

4. (Original) A compound according to claim 1 wherein the compound has the formula (I-c):



wherein t, G, R¹, R^{2a}, R^{2b}, R³, R⁵ and R⁶ are as claimed in claim 1.

5. (Original) A compound according to claim 1 wherein the compound has the formula (I-d-2):



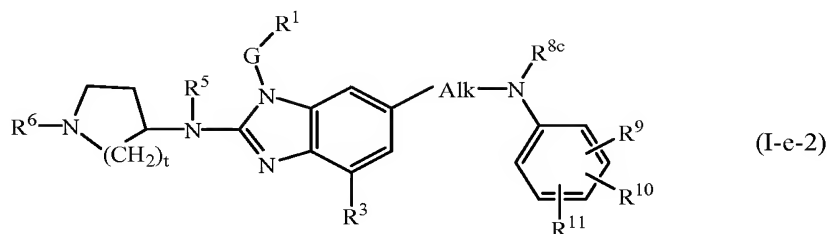
wherein t, R⁵, R⁶, G and R¹ are as claimed in claim 1; and

Alk is C₁₋₆alkanediyl;

R^{8c} has the same meanings of R^{8a}, as claimed in claim 1, and also may be hydrogen;

R⁹, R¹⁰, R¹¹ independently from one another have the same meanings as the substituents on Ar³ as claimed in claim 1.

6. (Original) A compound according to claim 1 wherein the compound has the formula (I-e-2):



wherein t, R⁵, R⁶, G and R¹ are as claimed in claim 1; and

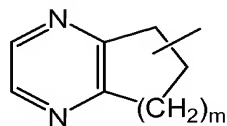
Alk is C₁₋₆alkanediyl;

R^{8c} has the same meanings of R^{8a}, as claimed in claim 1, and also may be hydrogen;

R⁹, R¹⁰, R¹¹ independently from one another have the same meanings as the substituents on Ar³ as claimed in claim 1.

7. (Currently Amended) A compound according to claim 4~~any of claims 4 to 6~~ wherein t is 2.
8. (Currently Amended) A compound according to claim 1~~any of claims 1-7~~, wherein G is C₁₋₁₀alkanediyl.
9. (Currently Amended) A compound according to claim 1~~in any of claims 1-7~~, wherein G is methylene.
10. (Currently Amended) A compound according to claim 1~~any of claims 1-9~~, wherein R¹ is pyridyl optionally substituted with 1 or 2 substituents independently selected from the group consisting of halo, hydroxy, amino, cyano, carboxyl, C₁₋₆alkyl, C₁₋₆alkyloxy, C₁₋₆alkylthio, C₁₋₆alkyloxyC₁₋₆alkyl, Ar¹, Ar¹C₁₋₆alkyl, Ar¹C₁₋₆alkyloxy, hydroxyC₁₋₆alkyl, mono-or di(C₁₋₆alkyl)amino, mono-or di(C₁₋₆alkyl)aminoC₁₋₆alkyl, polyhaloC₁₋₆alkyl, C₁₋₆alkylcarbonylamino, C₁₋₆alkyl-SO₂-NR^{4a}-, Ar¹-SO₂-NR^{4a}-, C₁₋₆alkyloxycarbonyl, -C(=O)-NR^{4a}R^{4b}-, HO(-CH₂-CH₂-O)_n-, halo(-CH₂-CH₂-O)_n-, C₁₋₆alkyloxy(-CH₂-CH₂-O)_n-, Ar¹C₁₋₆alkyloxy(-CH₂-CH₂-O)_n- and mono-or di(C₁₋₆alkyl)amino(-CH₂-CH₂-O)_n-.
11. (Currently Amended) A compound according to claim 1~~any of claims 1-9~~, wherein R¹ is pyridyl substituted with 1 or 2 substituents independently selected from the group consisting of hydroxy and C₁₋₆alkyl.

12. (Currently Amended) A compound according to claim 1 ~~any of claims 1—9~~, wherein R^1 is Ar^1 , quinolinyl, benzimidazolyl, a radical of formula



(c-4)

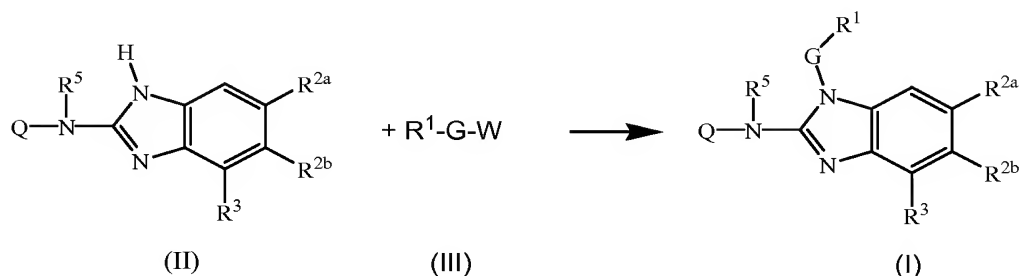
or pyrazinyl; wherein each of the radicals Ar^1 , quinolinyl, benzimidazolyl, (c-4), or pyrazinyl may optionally be substituted with the substituents of said radicals as claimed in claim 1.

13. (Currently Amended) A compound according to claim 1 ~~any of claims 1—9~~, wherein R^1 is phenyl optionally substituted with one, two or three radicals selected from the group consisting of halo, hydroxy, C_{1-6} alkyl, C_{1-6} alkyloxy; quinolinyl; a radical (c-4) wherein m is 2, optionally substituted with up to two radicals selected from C_{1-6} alkyl; benzimidazolyl optionally substituted with C_{1-6} alkyl; pyrazinyl optionally substituted with up to three radicals selected from C_{1-6} alkyl.
14. (Currently Amended) A compound according to claim 1 ~~any of claims 1—13~~, wherein one of R^{2a} and R^{3a} is selected from cyano C_{1-6} alkyl, cyano C_{2-6} alkenyl, Ar^3C_{1-6} alkyl, $(Ar^3)(OH)C_{1-6}$ alkyl, Het- C_{1-6} alkyl, $N(R^{8a}R^{8b})C_{1-6}$ alkyl, Ar^3C_{2-6} alkenyl, Het- C_{2-6} alkenyl, Ar^3 amino C_{1-6} alkyl, Het-amino C_{1-6} alkyl, Het- C_{1-6} alkylamino C_{1-6} alkyl, Ar^3 thio C_{1-6} alkyl, Het-thio C_{1-6} alkyl, Ar^3 sulfonyl C_{1-6} alkyl, Het-sulfonyl C_{1-6} alkyl, Ar^3 aminocarbonyl, Het-aminocarbonyl, $Ar^3(CH_2)_n$ aminocarbonyl, Het- $(CH_2)_n$ aminocarbonyl, Ar^3 carbonylamino, $Ar^3(CH_2)_n$ amino; and the other one of R^{2a} and R^{2b} is hydrogen.
15. (Currently Amended) A compound according to claim 1 ~~any of claims 1—13~~, wherein one of R^{2a} and R^{3a} is selected from cyano C_{1-6} alkyl, Ar^3C_{1-6} alkyl, Het- C_{1-6} alkyl, $N(R^{8a}R^{8b})C_{1-6}$ alkyl, Ar^3C_{2-6} alkenyl, Ar^3 amino C_{1-6} alkyl, Het-amino C_{1-6} alkyl, Het- C_{1-6} alkylamino C_{1-6} alkyl, Ar^3 thio C_{1-6} alkyl, Ar^3 aminocarbonyl, Het-aminocarbonyl, $Ar^3(CH_2)_n$ aminocarbonyl, Het- $(CH_2)_n$ aminocarbonyl; and the other one of R^{2a} and R^{2b} is hydrogen.
16. (Currently Amended) A compound according to claim 1 ~~any of claims 1—13~~, wherein one of R^{2a} and R^{3a} is selected from $N(R^{8a}R^{8b})C_{1-6}$ alkyl, Ar^3 amino C_{1-6} alkyl; and the other one of R^{2a} and R^{2b} is hydrogen.

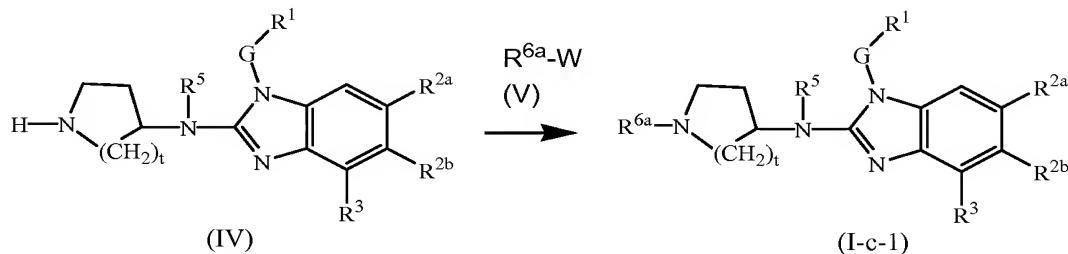
17. (Currently Amended) A compound according to claim 1~~any of claims 14—16~~, wherein
in case R^{2a} is hydrogen then R³ is hydrogen;
in case R^{2b} is hydrogen then R³ is hydrogen or C₁₋₆alkyl.
18. (Currently Amended) A compound according to claim 1~~any of claims 1—17~~, wherein R⁵ is hydrogen.
19. (Currently Amended) A compound according to claim 1~~any of claims 1—18~~, wherein Q is R^{6a}, wherein R^{6a} is C₁₋₆alkyl substituted with one or with two substituents each independently selected from the group consisting of trifluoromethyl, NR^{7a}R^{7b}, Ar², hydroxy, C₁₋₄alkoxy, Ar²(CH₂)_noxy, hydroxycarbonyl, aminocarbonyl, C₁₋₄alkylcarbonyl, C₁₋₄alkoxycarbonyl, Ar²(CH₂)_ncarbonyl, aminocarbonyloxy, C₁₋₄alkylcarbonyloxy, Ar²carbonyloxy, mono- or di(C₁₋₄alkyl)aminocarbonyl, aminosulfonyl, mono- or di(C₁₋₄alkyl)aminosulfonyl or a heterocycle selected from the group consisting of pyrrolidinyl, imidazolyl, piperidinyl, homopiperidinyl, piperazinyl, dioxolanyl, dioxanyl and pyridyl, wherein each of said heterocycle may optionally be substituted with with one or two radicals selected from oxo and C₁₋₆alkyl;
20. (Currently Amended) A compound according to claim 1~~any of claims 1—18~~, wherein Q is R^{6a}, wherein R^{6a} is C₁₋₆alkyl substituted with Ar² or hydroxy, or C₁₋₆alkyl substituted with two hydroxy radicals, or C₁₋₆alkyl substituted with diC₁₋₆alkyl-dioxolanyl, pyrrolidinyl, piperidinyl, piperazinyl, 4-C₁₋₆alkyl-piperazinyl.
21. (Currently Amended) A compound according to claim 1~~any of claims 1—18~~, wherein Q is pyrrolidinyl substituted with R⁶, piperidinyl substituted with R⁶ or homopiperidinyl substituted with R⁶; wherein R⁶ is hydrogen or C₁₋₆alkyl optionally substituted with one or with two substituents, each independently selected from the group consisting of trifluoromethyl, NR^{7a}R^{7b}, Ar², hydroxy, C₁₋₄alkoxy, Ar²(CH₂)_noxy, hydroxycarbonyl, aminocarbonyl, C₁₋₄alkylcarbonyl, C₁₋₄alkoxycarbonyl, Ar²(CH₂)_ncarbonyl, aminocarbonyloxy, C₁₋₄alkylcarbonyloxy, Ar²carbonyloxy, mono- or di(C₁₋₄alkyl)aminocarbonyl, aminosulfonyl, mono- or di(C₁₋₄alkyl)aminosulfonyl or a heterocycle selected from the group consisting of pyrrolidinyl, imidazolyl, piperidinyl, homopiperidinyl, piperazinyl, dioxolanyl, dioxanyl and pyridyl, wherein each of said heterocycle may optionally be substituted with with one or two radicals selected from oxo and C₁₋₆alkyl.

22. (Currently Amended) A compound according to claim 1~~any of claims 1—18~~, wherein Q is pyrrolidinyl substituted with R⁶, piperidinyl substituted with R⁶ or homopiperidinyl substituted with R⁶; wherein R⁶ is hydrogen or C₁₋₆alkyl optionally substituted with NR^{7a}R^{7b}, Ar², hydroxy, hydroxycarbonyl, aminocarbonyl, aminosulfonyl or C₁₋₆alkyl substituted with two hydroxy radicals, or C₁₋₆alkyl substituted with a heterocycle selected from dioxolanyl, pyrrolidinyl, piperidinyl, homopiperidinyl, piperazinyl, wherein each of said heterocycle may optionally be substituted with oxo or with one or two C₁₋₆alkyl radicals.
23. (Currently Amended) A compound according to claim 1~~any of claims 1—18~~, wherein Q is pyrrolidinyl substituted with R⁶, piperidinyl substituted with R⁶ or homopiperidinyl substituted with R⁶; wherein R⁶ is hydrogen or C₁₋₆alkyl substituted with Ar² or C₁₋₆alkyl substituted with piperidinyl or with piperazinyl.
24. (Currently Amended) A compound according to claim 21~~any of claims 21—23~~, wherein Q is piperidinyl substituted with R⁶.
25. (Currently Amended) A compound according to claim 1~~any of claims 1—24~~, wherein R^{8a} is Ar³, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, C₁₋₆alkoxyC₁₋₆alkyl, cyanoC₁₋₆alkyl, aminoC₁₋₆alkyl, mono-or di(C₁₋₆alkyl)aminoC₁₋₆alkyl, Ar³C₁₋₆alkyl, Het-C₁₋₆alkyl, aminocarbonyl-C₁₋₆alkyl, carboxyl-C₁₋₆alkyl; and R^{8b} is Ar³.
26. (Currently Amended) A compound according to claim 1~~any of claims 1—24~~, wherein R^{8a} is C₁₋₆alkyl, hydroxyC₁₋₆alkyl, Ar³C₁₋₆alkyl, Het-C₁₋₆alkyl, aminocarbonyl-C₁₋₆alkyl; and R^{8b} is C₁₋₆alkyl, hydroxyC₁₋₆alkyl, Ar³C₁₋₆alkyl, Het-C₁₋₆alkyl.
27. (Currently Amended) A compound according to claim 1~~any of claims 1—26~~, wherein Ar³ is phenyl optionally substituted with one, two or three substituents selected from halo, hydroxy, mercapto, amino, cyano, C₁₋₆alkyl, C₂₋₆alkenyl, C₂₋₆alkynyl, Ar¹, hydroxyC₁₋₆alkyl, CF₃, aminoC₁₋₆alkyl, cyanoC₁₋₆alkyl, aminocarbonyl, C₁₋₆alkyloxy, C₁₋₆alkylthio, Ar¹-oxy, Ar¹-thio, Ar¹-amino, aminosulfonyl, aminocarbonyl-C₁₋₆alkyl, hydroxycarbonyl-C₁₋₆alkyl, hydroxycarbonyl, C₁₋₄alkylcarbonyl, C₁₋₄alkylcarbonylamino or C₁₋₄alkoxycarbonyl.

28. (Currently Amended) A compound according to claim 1~~any of claims 1–27~~, wherein Ar³ is phenyl substituted with one, two or three substituents selected from halo, C₁₋₆alkyl or hydroxyC₁₋₆alkyl.
29. (Currently Amended) A compound as claimed in claim 1~~any one of claims 1 to 28~~ for use as a medicine.
30. (Currently Amended) A pharmaceutical composition comprising a pharmaceutically acceptable carrier, and as active ingredient a therapeutically effective amount of a compound as claimed in claim 1~~any one of claims 1 to 23~~.
- 31-32. (Cancelled)
33. (Currently Amended) A process for preparing a compound as claimed in claim 1~~any of claims 1 to 23~~, said process comprising
- (a) reacting an intermediate of formula (II) with a reagent (III) as in the following reaction scheme:

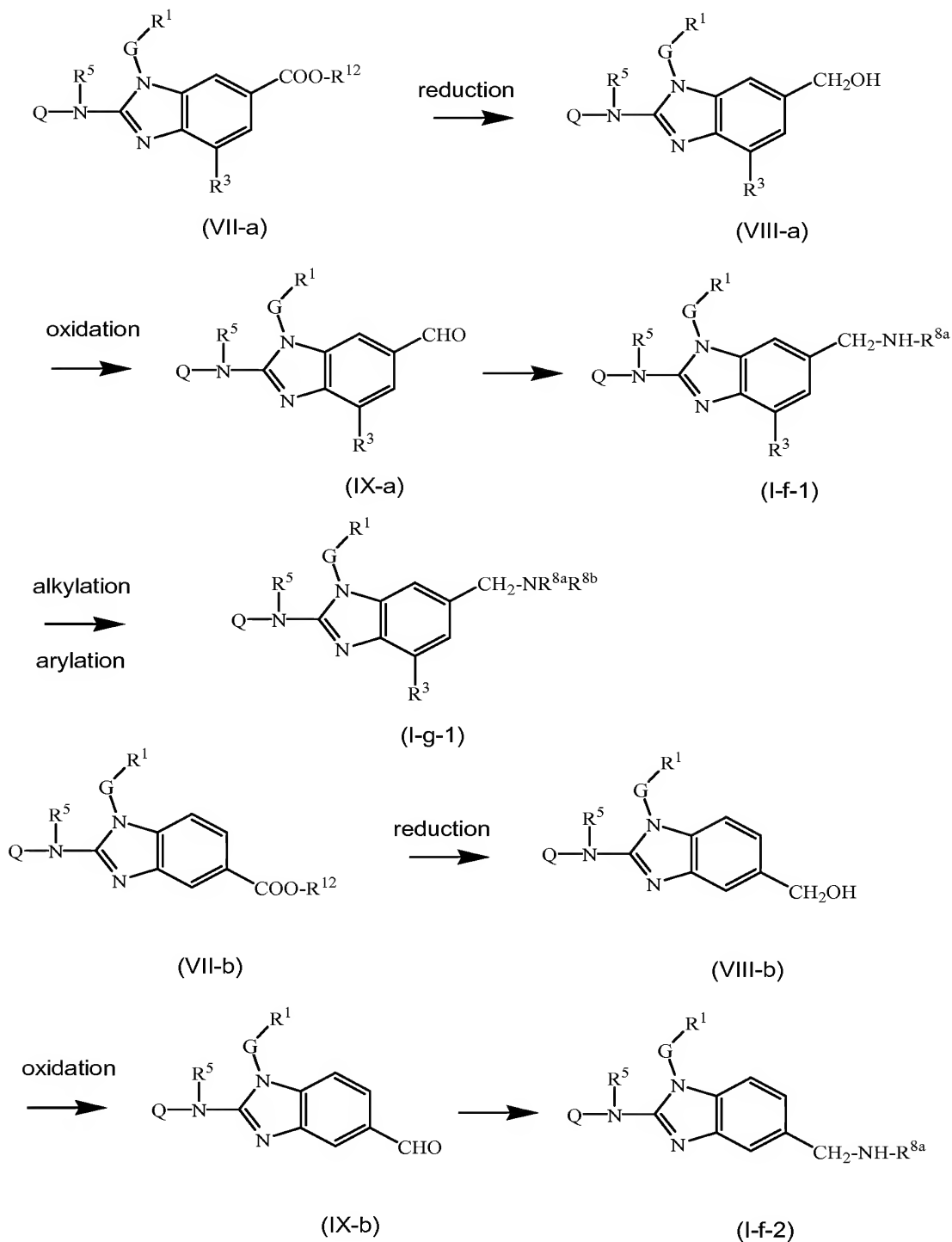


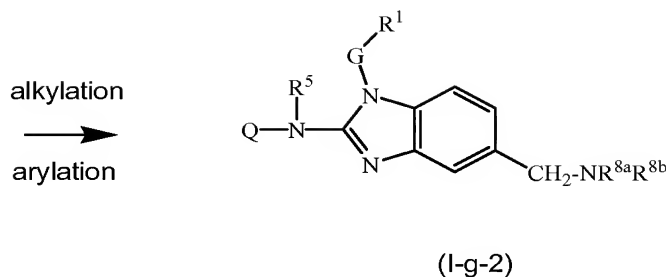
- (b) reacting an intermediate of formula (IV) with a reagent (V) thus obtaining a compound of formula (I-c-1) as in the following reaction scheme:



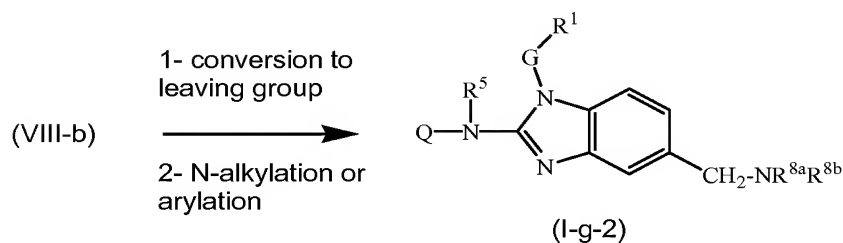
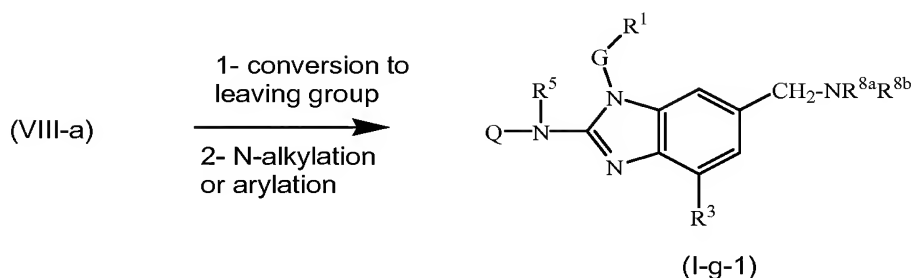
- (c) reducing an intermediate (VII-a) or (VII-b) to obtain an intermediate (VIII-a) or (VIII-b) and subsequently oxidizing the alcohol group in (VIII-a) or (VIII-b) with a mild oxidant to obtain an intermediate (IX-a) or (IX-b) and subsequently alkylating (IX-a) or (IX-b) to obtain (I-f-1) or (I-f-2), which is

further alkylated to obtain (I-g-1) or (I-g-2) as in the following reaction schemes:

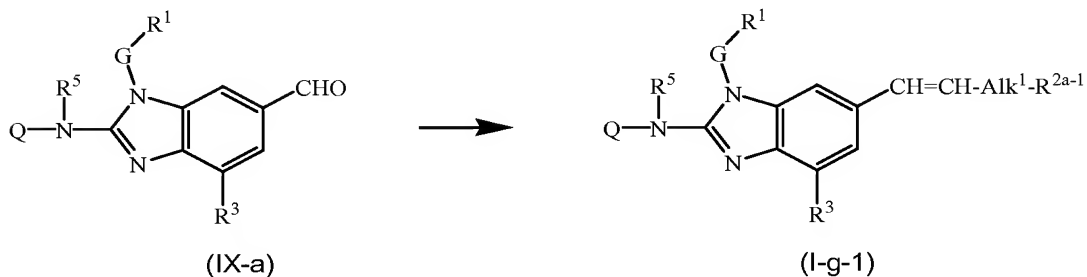


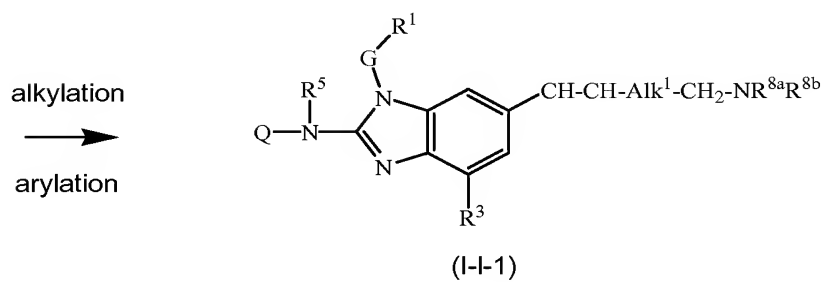
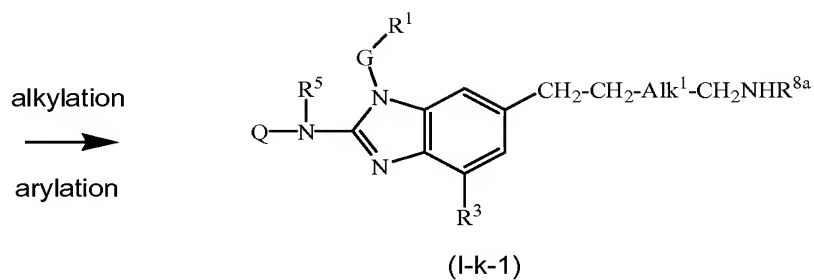
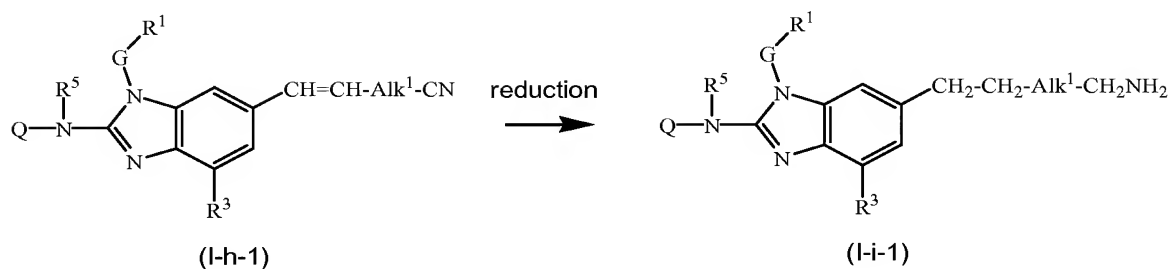
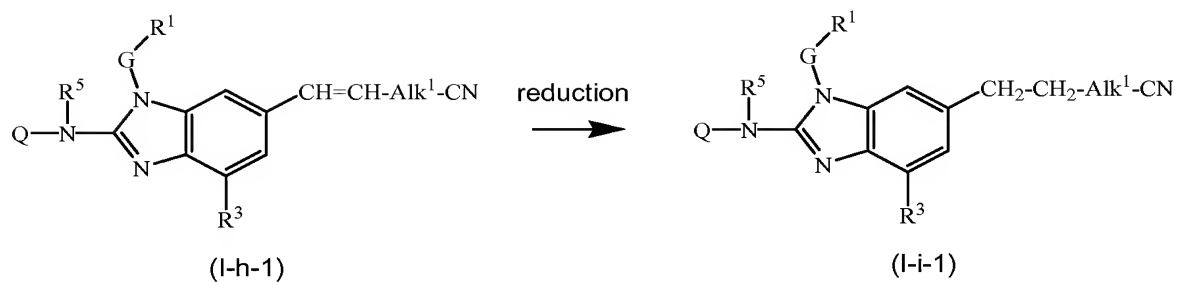


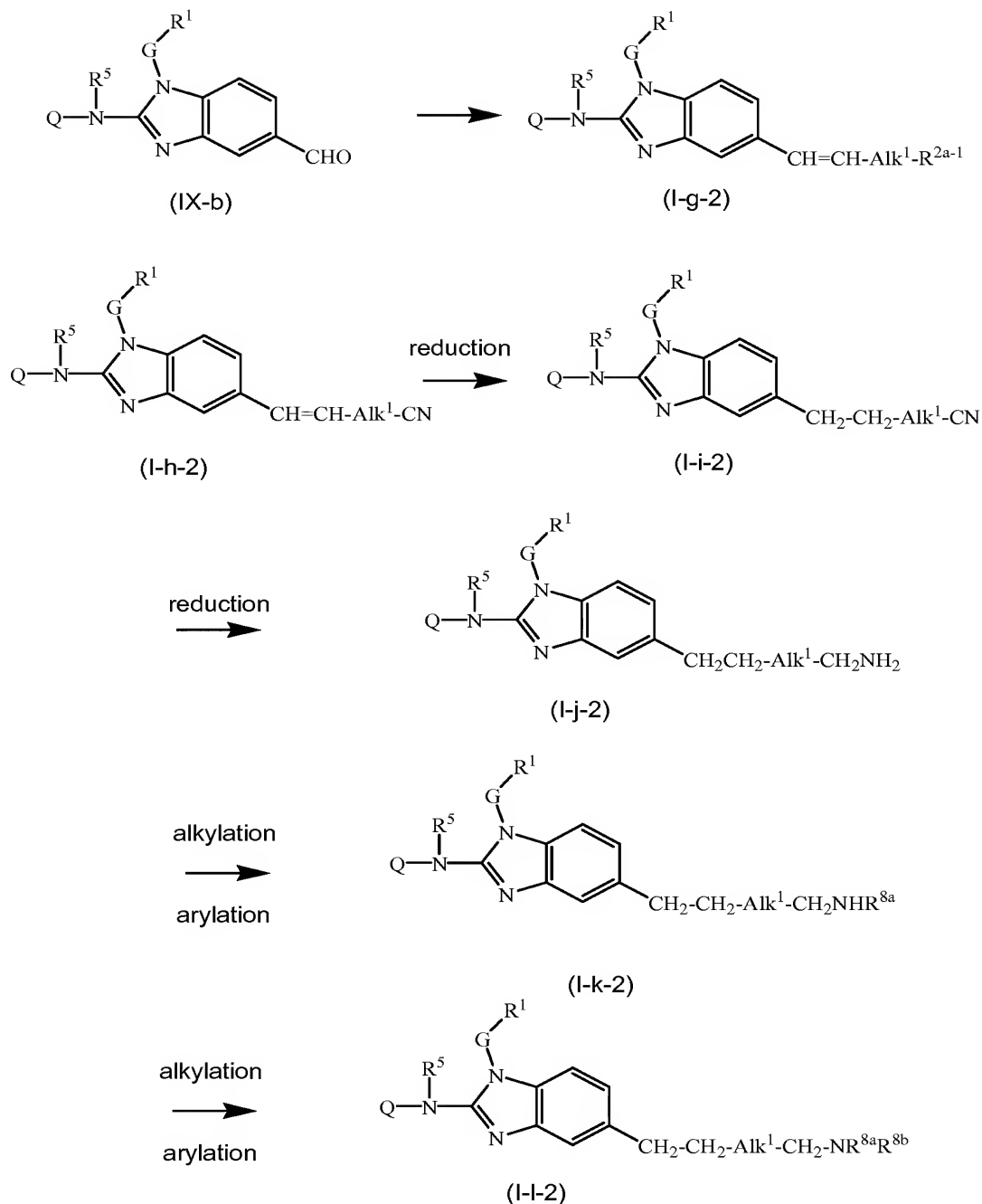
(d) converting the alcohol group in (VIII-a) or (VIII-b) to a leaving group and subsequently reacting the thus obtained products with an amine thus obtaining (I-g-1) or (I-g-2);



(e) converting an intermediate (IX-a) or (IX-b) to a compound (I-g-1) or (I-g-2) using a Wittig or Wittig-Horner procedure; selectively reducing the double bond in (I-g-1) or (I-g-2) thus obtaining compounds (I-i-1) or (I-i-2); reducing the cyano group in (I-i-1) or (I-i-2) to a methyleneamine group thus obtaining (I-j-1) or (I-j-2); mono- or dialkylating the latter thus obtaining compounds (I-k-1) or (I-k-2); (I-l-1) or (I-l-2):







and optionally converting the thus obtained compounds of formula (I) into their pharmaceutically acceptable base-addition or acid addition salt form by treatment with a suitable base or acid and conversely treating the base-addition or acid addition salt form with an acid or a base to obtain the free form of the compound of formula (I).

34. (Currently Amended) A compound of formula (VII-a), (VII-b), (VIII-a), (VIII-b), (IX-a), (IX-b), (I-f-1), (I-f-2), (I-g-1) or (I-g-2) said formula being as in claim 33, wherein G, R¹, R^{2a}, R^{2b}, R³, R⁵, R^{8a}, R^{8b}, R¹² are as claimed in claim 33~~claim 1~~, and wherein Q is pyrrolidinyl, piperidinyl or homopiperidinyl, substituted on their nitrogen with a radical R⁶ which is C₁₋₆alkyl optionally substituted with one or two, substituents each independently selected from the group consisting of trifluoromethyl, C₃₋₇cycloalkyl, Ar², hydroxy, C₁₋₄alkoxy, C₁₋₄alkylthio, Ar²-oxy-, Ar²-thio-, Ar²(CH₂)_noxy, Ar²(CH₂)_nthio, hydroxycarbonyl, aminocarbonyl, C₁₋₄alkylcarbonyl, Ar²carbonyl, C₁₋₄alkoxycarbonyl, Ar²(CH₂)_ncarbonyl, amino-carbonyloxy, C₁₋₄alkylcarbonyloxy, Ar²carbonyloxy, Ar²(CH₂)_ncarbonyloxy, C₁₋₄alkoxycarbonyl(CH₂)_noxy, mono- or di(C₁₋₄alkyl)aminocarbonyl, mono- or di(C₁₋₄alkyl)aminocarbonyloxy, aminosulfonyl, mono- or di(C₁₋₄alkyl)amino-sulfonyl or a heterocycle selected from the group consisting of pyrrolidinyl, pyrrolyl, dihydropyrrolyl, imidazolyl, triazolyl, piperidinyl, homopiperidinyl, piperazinyl, dioxolanyl, dioxanyl, pyridyl and tetrahydropyridyl, wherein each of said heterocycle may optionally be substituted with one or two substituents selected from oxo or C₁₋₆alkyl; and wherein said R⁶ can be represented by R^{6b}, as well as the pharmaceutically acceptable salt forms thereof, and the possible stereoisomeric forms thereof.
35. (Original) A compound according to claim 34 wherein R^{6b} is C₁₋₆alkyl optionally substituted with Ar², hydroxy, aminocarbonyl, aminosulfonyl, or C₁₋₆alkyl substituted with two hydroxy radicals, or C₁₋₆alkyl substituted with pyrrolidinyl, piperidinyl, piperazinyl, 4-C₁₋₆alkyl-piperazinyl.
36. (Original) A compound according to claim 34 wherein R^{6b} is C₁₋₆alkyl.
37. (Currently Amended) A compound formula (VII-a), (VII-b), (VIII-a), (VIII-b), (IX-a), (IX-b), (I-f-1), (I-f-2), (I-g-1) or (I-g-2) said formula being as in claim 33, wherein G, R¹, R^{2a}, R^{2b}, R³, R⁵, R^{8a}, R^{8b} and R¹² are as claimed in claim 1 and wherein Q is R^{6b} wherein R^{6b} is as claimed in claim 33~~claim 1~~.
38. (Original) A compound according to claim 37 wherein R^{6b} is C₁₋₆alkyl optionally substituted with Ar², hydroxy, aminocarbonyl, aminosulfonyl, or C₁₋₆alkyl substituted with two hydroxy radicals, or C₁₋₆alkyl substituted with pyrrolidinyl, piperidinyl, piperazinyl, 4-C₁₋₆alkyl-piperazinyl.
39. (Original) A compound according to claim 37 wherein R^{6b} is C₁₋₆alkyl.

REMARKS

Consideration of the captioned application in view of the foregoing amendments and following remarks is requested.

The specification has been amended to refer to the priority applications.

Claims 1-30 and 33-39 are currently pending. Claims 31 and 32 are hereby cancelled and claims 7-30, 33, 34 and 37 are currently amended, without disclaimer of or prejudice to the subject matter deleted therein. No new matter has been added.

Accordingly, the claims pending and under consideration are claims 1-30 and 33-39.

Early favourable action on the merits is respectfully requested.

Applicant respectfully requests that a timely Notice of Allowance of claims 1-30 and 33-39 be issued in this case.

Respectfully submitted,

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